

Remarks

Pending Claims 18 through 45 and 53 have been cancelled. Independent Claim 46 has been amended. New dependent Claims 61, 62, and 63 have been added by this amendment. Claims 46 through 52 and 54 through 63 currently are pending.

Claims 46 through 60 have been rejected as unpatentable over subject matter recited in the Declaration of William F. Foreman, III, P.E., considered alone, which was submitted in an Information Disclosure Statement filed on September 1, 2006 as citation No. 13. This subject matter is referred to therein and will be referred to hereinbelow as the "PES filter," for convenience.

Claims 46, 57, and 58 are independent. Independent Claim 46 has been amended as discussed with the Examiner in a telephone interview of January 10, 2006 to recite that the influent conduit of applicant's filtration apparatus is connected to a source of liquid having suspended solids therein. Thus, Claim 46 clearly recites structure by which liquid having suspended solids therein enters the apparatus adjacent a first fixed panel and travels in an axial flow direction through the filter bed, the filter bed proceeding progressively from more porous to less porous in the axial flow direction. *See* Subparagraph g, clause i, of Claim 46 setting forth the filter bed porosity gradient. Independent Claim 57 recites an up-flow filter having a fixed panel located above a waste water influent, a movable panel located above the first panel and below effluent conduits, and a filter bed proceeding progressively from more porous to less porous in the axial flow direction. Independent Claim 58 recites an activated sludge plant containing an upflow filter with a lower fixed panel, an upper movable panel, a waste water influent, and the filter bed proceeding progressively upflow from more porous to less porous.

The PES filter does not disclose a filter having a waste water influent or influent for any liquid containing suspended solids that is located below a lower fixed perforated panel. The PES filter does not even disclose an influent conduit for waste water in any location on the filter as described. The PES filter is designed for combined sewer overflow and so influent waste water floods over the top of the filter through an upper movable panel. The influent conduit disclosed in the PES filter is not connected to a waste water source, but to potable water for cleaning the

filter bed upflow. Thus, as confirmed in the telephone interview, the PES filter is not capable of admitting waste water from the bottom.

The PES filter does not disclose or suggest the filter of applicant's claims, whether considered alone or in combination with any of the other references of record. Masuda et al. U.S. Patent No. 5,248,415 discloses a filter having a lower movable panel and a fixed upper panel and in which influent is to the lower movable panel. There is no recognition in either Masuda or the PES filter of a compression gradient in a compressible filter bed, much less in what direction the compression gradient proceeds, as is recited in applicant's claims.

The Masuda patent does not disclose or suggest substituting an upper movable panel for an upper fixed panel. There is no suggestion in the PES filter to make this substitution in the filter of Masuda. There is no further suggestion to fix the lower movable panel in Masuda. In fact, the axial flow directions for filtration of waste water in Masuda and combined sewer overflow in the PES filter are the same regarding influent through a movable perforated panel, filtration through a compressible filter media, and then effluent through a fixed perforated panel. In each of the Masuda and PES filters, compression of the filter media results in the structure of a filter bed compression gradient proceeding from less compressed to more compressed in a direction opposite to the axial flow direction recited in all of applicant's pending independent claims, which are Claims 46, 57, and 58. The PES and Masuda filters clog quickly, blind, and require excessive water for cleaning, and are inefficient to operate for long term filtration, in contrast to applicant's filter, as set forth at paragraphs 12, 15, and 25 in the Rules 56 and 132 Declaration of William F. Foreman, III, P.E.

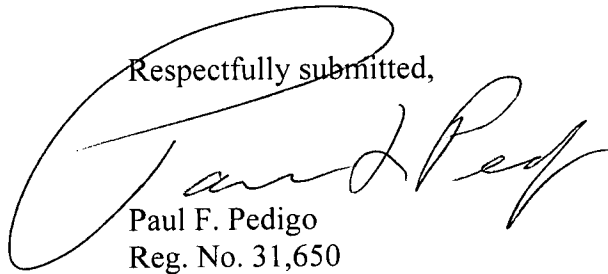
There is no disclosure or suggestion in the PES filter, the Masuda filter, or any of the other references of record of the elements of applicant's filter as recited in pending Claims 46, 57, and 58. There is no disclosure or suggestion of the combination of an influent conduit connected to a source of liquid containing suspended solids located adjacent to a perforated fixed panel and establishing an axial flow direction through compressible media compressed with a movable perforated panel located adjacent the effluent.

New Claims 61, 62, and 63 recite structure providing that the fluid to be filtered also washes the filter. There is no disclosure or suggestion of these elements in combination with the filter structure as recited in the claims from which they depend.

All of Applicant's Claims 46 through 52 and 54 through 63 should now be in condition for immediate allowance and an early indication of the allowability of these claims is earnestly solicited.

The Applicant is unaware of any fees due for this Response and Amendment. If the Examiner determines, however, that additional fees are required or if any credits are due, the Examiner is hereby authorized to charge or credit Deposit Account No. 50-0332 as appropriate.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul F. Pedigo", is written over the typed name and registration number. The signature is fluid and cursive, with a large loop at the beginning and a long, sweeping tail.

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